```
          (B)  TYPE: nucleic acid
          (C)  STRANDEDNESS: single
          (D)  TOPOLOGY: linear
     (ii)  MOLECULE TYPE: cDNA
     (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:4:
CCTGTCCCCG CCCCCCGGGC GGGCCGGGGG CGGGGTCCCG GCGGGGCGGA          50
GCCATGCGCC CCCCCCCTTT TTTTTTTAAA AGTCGGCTGG TAGCGGGGAG         100
GATCGCGGAG GCTTGGGGCA GCCGGGTAGC                               130

          (2)  INFORMATION FOR SEQ ID NO:5:
          (i)  SEQUENCE CHARACTERISTICS:
          (A)  LENGTH: 60 base pairs
          (B)  TYPE: nucleic acid
          (C)  STRANDEDNESS: single
          (D)  TOPOLOGY: linear
          (ii) MOLECULE TYPE: cDNA
          (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
CTGACGGAGA GACAGACAGA CACCGCCCCC AGCCCCAGCT ACCACCTCCT          50
CCCCGGCCGG                                                     60

          (2)  INFORMATION FOR SEQ ID NO:6:
          (i)  SEQUENCE CHARACTERISTICS:
          (A)  LENGTH: 69 base pairs
          (B)  TYPE: nucleic acid
          (C)  STRANDEDNESS: single
          (D)  TOPOLOGY: linear
     (ii)  MOLECULE TYPE: cDNA
     (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:6:
TGCGCAGACA GTGCTCCAGC CGCGCGCGCT CCCCAGGCCC TGGCCCGGGC          50
CTCGGGCCGG GGAGGAAGA                                           69

          (2)  INFORMATION FOR SEQ ID NO:7:
          (i)  SEQUENCE CHARACTERISTICS:
          (A)  LENGTH: 89 base pairs
          (B)  TYPE: nucleic acid
          (C)  STRANDEDNESS: single
          (D)  TOPOLOGY: linear
     (ii)  MOLECULE TYPE: cDNA
     (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:7:
AAAGTGTTTT ATATACGGTA CTTATTTAAT ATCCCTTTTT AATTAGAAAT          50
TAAAACAGTT AATTAATTA AAGATAGGGT TTTTTTTCA                       89

          (2)  INFORMATION FOR SEQ ID NO:8:
          (i)  SEQUENCE CHARACTERISTICS:
          (A)  LENGTH: 62 base pairs
          (B)  TYPE: nucleic acid
          (C)  STRANDEDNESS: single
          (D)  TOPOLOGY: linear
     (ii)  MOLECULE TYPE: cDNA
     (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:8:
TTTTTTAATT TTAATATTTG TTATCATTTA TTTATTGGTG CTACTGTTTA          50
TCCGTAATAA TT                                                  62

          (2)  INFORMATION FOR SEQ ID NO:9:
          (i)  SEQUENCE CHARACTERISTICS:
          (A)  LENGTH: 72 base pairs
          (B)  TYPE: nucleic acid
          (C)  STRANDEDNESS: single
          (D)  TOPOLOGY: linear
     (ii)  MOLECULE TYPE: cDNA
     (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:9:
ATACATTTAT ATATATATAT ATTATATATA TATAAAAATA AATATCTCTA          50
TTTTATATAT ATAAAATATA TA                                       72

          (2)  INFORMATION FOR SEQ ID NO:10:
          (i)  SEQUENCE CHARACTERISTICS:
          (A)  LENGTH: 89 base pairs
          (B)  TYPE: nucleic acid
          (C)  STRANDEDNESS: single
          (D)  TOPOLOGY: linear
     (ii)  MOLECULE TYPE: cDNA
```

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

AAAGTGTTTT ATATACGGTA CTTATTTAAT ATCCCTTTTT AATTAGAAAT   50

TAAAACAGTT AATTTAATTA AAGATAGGGT TTTTTTTCA   89

(2) INFORMATION FOR SEQ ID NO:11:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 61 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

TCTTAAAAAA AAAAAAGCAT TTTGTATTAA AGAATTTAAT TCTGATCTCA   50

AAGCTCCTCT T   61

SEQUENCE LISTING

(1) GENERAL INFORMATION
   (i)   APPLICANT: Rakoczy et al.
   (ii)TITLE OF THE INVENTION: **HYALURONIC ACID AS DNA CARRIER FOR GENE THERAPY AND VEGF ANTISENSE DNA TO TREAT ABNORMAL RETINAL VASCULARIZATION**

   (iii) NUMBER OF SEQUENCES: 11
   (iv) CORRESPONDENCE ADDRESS:
   (A) ADDRESSEE: ARTER & HADDEN
   (B) STREET: 725 South Figueroa St, # 2400
   (C) CITY: Los Angeles
   (D) STATE: CA
   (E) COUNTRY: USA
   (F) ZIP: 90071
   (v) COMPUTER READABLE FORM:
   (A) MEDIUM TYPE: Diskette
   (B) COMPUTER: IBM Compatible
   (C) OPERATING SYSTEM: DOS
   (D) SOFTWARE: FastSEQ for Windows Version 2.0
   (vi) CURRENT APPLICATION DATA:
   (A) APPLICATION NUMBER: USSN 09/065,082
   (B) FILING DATE: 23-APR-1999
   (C) CLASSIFICATION:
   (vii) PRIOR APPLICATION DATA:
   (A) APPLICATION NUMBER: PCT AU96/00664
   (B) FILING DATE: 22-OCT-1996
   (viii) ATTORNEY/AGENT INFORMATION:
   (A) NAME: Amzel, Viviana
   (B) REGISTRATION NUMBER: 30,930
   (C) REFERENCE/DOCKET NUMBER: EPI-109
   (ix) TELECOMMUNICATION INFORMATION:
   (A) TELEPHONE: 213-430-3520
   (B) TELEFAX: 213-617-9255
   (C) TELEX:

   (2) INFORMATION FOR SEQ ID NO:1:
   (i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 19 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear
   (ii) MOLECULE TYPE: cDNA
   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
AGGAGAGCAG AAGTCCCAT   19

   (2) INFORMATION FOR SEQ ID NO:2:
   (i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 19 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear
   (ii) MOLECULE TYPE: cDNA
   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
CGTCAGAGAG CAACATCAC   19

   (2) INFORMATION FOR SEQ ID NO:3:
   (i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 77 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear
   (ii) MOLECULE TYPE: cDNA
   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
CCAGACTCCA CAGTGCATAC GTGGGCTCCA ACAGGTCCTC TTCCCTCCCA   50
GTCACTGACT AACCCCGGAA CCACACA   77

   (2) INFORMATION FOR SEQ ID NO:4:
   (i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 130 base pairs